INSTALLATION AND USER MANUAL FOR FUSE BOX NODE GR-3

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NB! GR-3 is not a stand-alone product; it is exclusively operated via a Sikom central unit, either locally or using SMS messages. GR-3 only communicates with Sikom A-Comfort and Sikom GSM Alarm Controller III.

PACKAGE CONTENTS

- GR-3
- Antenna
- Protection lid

DESCRIPTION

GR-3 is a fuse box module that offers **three relays** for turning circuits on and off.

Up to **three temperature sensors** may be connected. When combined with the thermostatic regulation function, the user can enter desired eco/comfort temperatures into the system to obtain a **programmable thermostat** which can easily be toggled between eco- and comfort temperatures. All three relays offer this function.

It is also possible to activate a **pulse** control mode on all outputs for equipment that should require this.

GR-3 has three LEDs which show when a given relay is switched on.

INSTALLATION

Power supply:

Use either 230 VAC (orange terminals) or 12 V DC (black terminals) as power supply, **but *not both* at the same time!** Adjust the protection lids over the terminal strips once all connections are made.

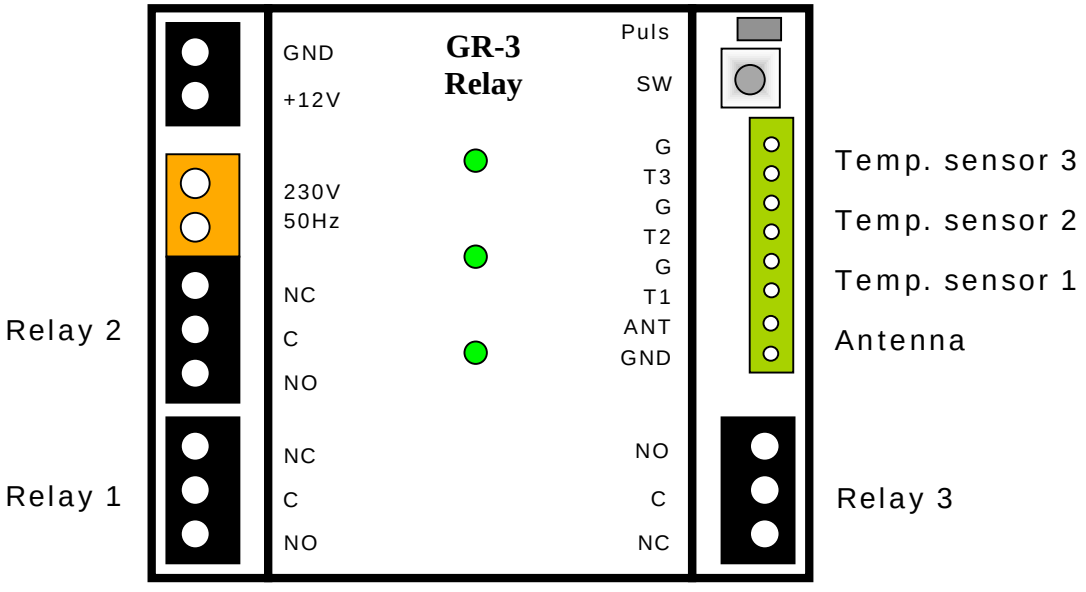


Fig 1: Connection terminals

Outputs/Relays:

Three potential-free relays are available for control of other appliances, each one supporting a load of 16 A. They offer thermostatic regulation, on/off or pulse control. Remove the jumper from the **Puls** pins to make all three relays produce pulses as control output. Thermostatic regulation will then be disabled. It will nevertheless remain possible to read off the current temperature from connected sensors.

NB! When using a 230 VAC power supply, the voltage applied at any relay must also be 230 VAC. Conversely, a power supply of 12 V DC limits the use of the relays to extra-low voltages (12 V DC or less). Add auxiliary relays or contactors when necessary.

Remark: the current received at the power supply terminals will only ensure the working of GR-3 itself (e.g., for communicating with the central unit), but not of the circuits and appliances connected to the relay terminals! As such, the relays will only act as switches (see fig. 2), not as power supplies.

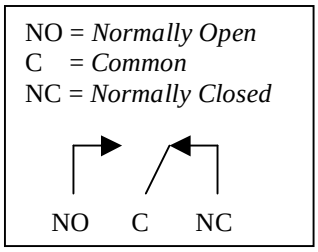


Fig. 2: Relay contacts (in the inactive state)

Temperature sensor inputs:

Only temperature sensors can be connected to inputs T1, T2 and T3: no other kind of detector!
Connect temperature sensors for the relays that will be used for thermostatic regulation or for reading off temperatures: sensor for relay #1 shall be connected to inputs T1 and G, and so on.

Temperature sensor cables must not be laid out alongside 230 V leads and should be kept as far away as possible from any sources of electrical interferences. Thermostatic regulation and temperature reading may otherwise be perturbed. Temperature sensors should therefore not be used as floor sensors for floor heating installations, as this would require shielded twisted pair sensors and filters. Similarly, whereas it is possible to extend a temperature sensor, it would also induce a loss of precision of measurements.

Antenna:

The radio antenna is stripped along 16 cm on one end, which must stick vertically out of the fuse box. Connect the central lead wire to the ANT terminal, and the other one to GND.

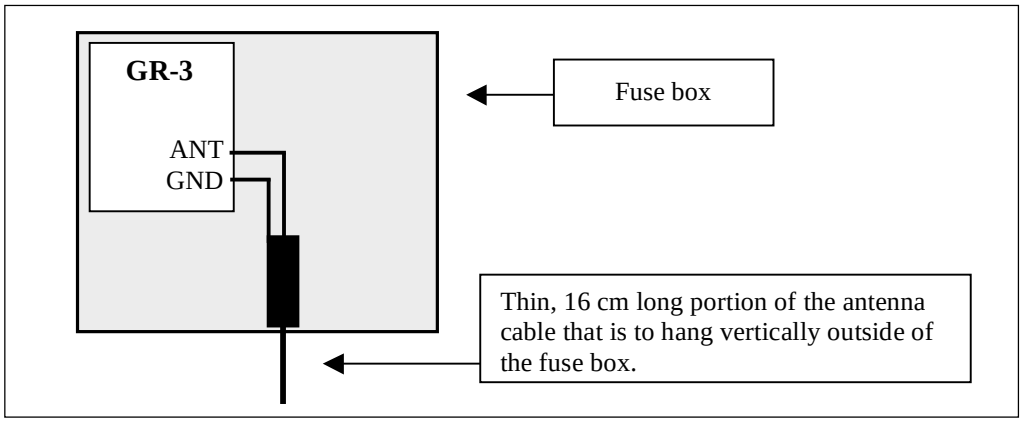


Fig. 3: Installation of antenna

REGISTRATION WITH THE CENTRAL UNIT

1. Choose Main menu 8 “Node” on the central unit (GR-3 is viewed as a set of three “Nodes”). Please refer to the node registration procedure in the user manual of the central unit.
2. Select “New node” and press OK.
3. Press then the **SW** button of GR-3 for at least 5 seconds.
4. “New node OK!” should then appear on the display of the central unit.
5. All three nodes/relays of GR-3 are registered in a single operation. Write down the three sequential numbers assigned to the relays of GR-3. These numbers will shortly be displayed by the central unit. Please write down these numbers for the end user.

IMPORTANT INFORMATION REGARDING FROST PROTECTION

The thermostatic regulation offered by Sikom devices may be used to maintain a base “eco” temperature in your premises, but must not be taken as an infallible frost protection. Indeed, any electronic equipment is vulnerable to power surges and other perturbations that may come from the electricity network, e.g. due to lightning. In such an event, if the electronics is damaged, it may no longer ensure the thermostatic regulation, and hence the frost protection. Therefore, if frost protection is a critical requirement, it is recommended to add a security mechanism. These are some alternatives:

1. Use an additional heating system, with its own thermostat, to ensure frost protection in critical premises.
2. Install a protection against power surges and other perturbations from the electricity network.
3. Set up a bimetal thermostat in parallel with your Sikom unit, as shown in the following figure:

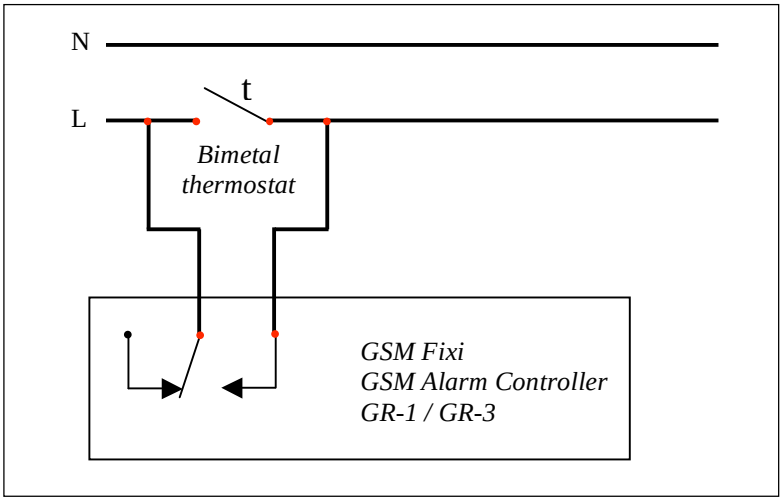


Fig. 4: Bimetal thermostat mounted in parallel

Sikom and its representatives will not assume liability for any damage due to frost!

TECHNICAL SPECIFICATIONS

Manufacturer:	Sikom AS, Norway
Model:	GR-3
Power supply:	230 V AC or 12 V DC
Power consumption:	max 25 mA at 230 V, and max 150 mA at 12 V
Relays:	3 x potential-free relays 230 VAC 16 A (resistive load)
Temperature sensor:	10K NTC at 25°C
Temperature sensing:	-28°C to +49°C ±2°C
Operating temperature:	-20°C to +50°C
Non-operating temperature:	-40°C to +70°C
Radio frequency:	433.9 MHz (for local communication with the central unit)
Dimensions:	70 x 90 x 59 mm (equivalent to 4 DIN modules)
Weight:	250 g
Certification:	CE Nemko

GR-3 is designed for indoor use only.

COMPLIANCE WITH INTERNATIONAL REGULATIONS

This equipment complies with the European R&TTE directive. Further information may be obtained by contacting either the Swiss importer through www.EcoStarter.com or the manufacturer:

Sikom AS (www.sikom.no)
Jernbanegata 16/18
P.O. Box 223
7601 Levanger
Norway

WARRANTY

Sikom A.S. products are covered by a two years warranty against any faults due to material flaws or manufacturing errors, which limit or render useless certain functions described for the product. The warranty requires the customer to present the original bill, with date of purchase and type of equipment clearly readable.

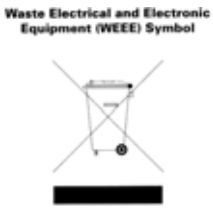
What is covered by the warranty?
During the warranty period, Sikom A.S. reserves the right to repair the product or to replace defective parts with functionally equivalent parts. If, after several attempts, Sikom A.S. is unable to correct the problem, and the product does not work as described in the manual, Sikom may elect to refund the purchase price or to replace the product with a functionally equivalent one. All replaced parts and products become the property of Sikom A.S.

What is not covered by the warranty?

- Indirect damage to life, health, property, revenue and environment caused by circuits and appliances connected to the units (install and use this product responsibly).
- Costs related to (re)installing, transporting and dismantling units; recycling may be governed by special rules (see the relevant chapter).
- Damages caused by use outside of the operating conditions specified in the manual.
- Malfunctions caused by transport damages.
- Any unauthorized repair, modification or disassembly.
- Use of non-original parts.
- External factors, such as lightning, power supply issues, mobile network issues, flood damage or fire.
- Units with modified, removed or unreadable serial number.

Sikom assumes no responsibility for any errors that may appear in this manual.
Information contained herein is subject to change without notice.

RECYCLING INFORMATION



The WEEE (Waste Electrical and Electronic Equipment) symbol indicates that this product must not be disposed of along with other household waste. It is the customer's responsibility to dispose of the product properly by taking it to a designated site for recycling. To locate a recycling/disposal site near you, contact your local city recycling program, your regular waste disposal service or the agent from whom you purchased this product.

For Switzerland, this product includes in its purchase price a contribution (the advanced recycling fee) to the SWICO Recycling Warranty, which means that used equipment can be handed in free of charge for recycling. Collection sites are listed at http://www.swicorecycling.ch.